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Docket No. SPLX.P0089

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Mani Adeli

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

NOV | 1 2003

In the application of:

Steven Teig

Serial No.:

10/047,978

Filing Date:

1/13/02

For:

PROBABILISTIC ROUTING METHOD

AND APPARATUS

## INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 11/12/2003 SSANDARA 00000010 10047978

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Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, applicants submit with this Information Disclosure Statement the attached Form PTO-1449, and copies of the documents listed in the 1449 form for consideration by the Examiner. The Examiner is requested to make these documents of record. Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

This Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to

the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

This Information Disclosure Statement is submitted: After receipt of a first Office Action on the merits but before a final Office Action or Notice of Allowance. A fee is required. A fee in the amount of \$180 is enclosed.

In the unlikely event that this fee is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to <u>Deposit Account No. 50-1128</u> referencing SPLX.P0089. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: November 5, 2003

Respectfully submitted,

Mani Adeli

Registration No. 39,585

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				Application Number			10/047,9	978	
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FOR	M			First Named Inventor			Steven 7	Teig	
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			001105	Filing Date	1/13/02	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				First Named Inventor	Steven Teig	
JIAI	CIVICIA! DI	AFF		Group Art Unit	2812	
(us	se as many sheets a	as nece	ssary)	Examiner Name	Stacy A. Whitemore	
neet	2	of	6	Attorney Docket Number	SPLX.P0089	

· ·			U.S.	PATENT DOCUMENTS	
22.	6,330,707		12-11-2001	Shinomiya et al.	
23.	6,407,434	B1	06-18-2002	Rostoker et al.	· · ·
24.	6,415,422	B1	07-02-2002	Mehrotra et al.	
 25.	6,442,743	B1	08-27-2002	Sarrafzadeh et al.	EC
26.	6,448,591	B1	09-10-2002	Juengling	RE(
 27.	6,473,891	B1	10-29-2002	Shively	10 E
28.	6,480,991	B1	11-12-2002	Cho et al.	45 11 30
29.	6,490,713	B2	12-03-2002	Matsumoto	CEI CEI
30.	6,546,540	B1	04-08-2003	Igarashi et al.	ATEX ED
31.	6,557,145	B2	04-29-2003	Boyle et al.	20
32.	6,567,967	B2	05-20-2003	Greidinger et al.	2800

				1	FOREIGN PA	ATENT DOCUMENTS		
Examiner* Initials	Cite No.1	For		ent d Code (nown) <sup>5</sup>	Date of Publication MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т6
	33.	JP	411296560	Α	10-29-1999	Matsumoto et al.	with English translation of Abstract;	
	34.	JP	2000-82743	A	03-21-2000	lgarashi et al.	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	1
	35.	JP	H03-173471	A	07-26-1991	Tawada et al.	with Japanese Patent Office's English translation of Abstract; and with English	1

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Sheet	3	of	6	Attorney Docket Number	SPLX.P0089

				FOREIGN PA	ATENT DOCUMENTS		ı
						translation of the application.	
36.	JP	H05-243379	A	09-21-1993	Masako Kuboto	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	٧
37.	JP	H05-102305	A	04-23-1993	Akihiro Sato	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	V
38.	JP	H07-86407	A	03-31-1995	Shinpei Miura	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	V
39.	JP	H09-162279	A	06-20-1997	Masaaki Yohsida	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	V

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE				Filing Date	1/13/02
INFO	TEMENT BY			First Named Inventor	Steven Teig
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Sheet	4	of	6	Attorney Docket Number	SPLX.P0089

		NON PATENT LITERATURE DOCUMENTS	
Examiner* Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sub>6</sub>
	40.	Ahuja, R. et al., Faster Algorithms for the Shortest Path Problem, Journal of the Association for Computing Machinery, vol. 37, No. 2, April 1990, pp. 213-223.	
	41.	Brady, L. et al., Channel Routing on a 60° Grid, extended abstract, pp. 956-931.	
	42.	Brambilla, A. et al., Statistical Method for the Analysis of Interconnects Delay in Submicrometer Layouts, IEEE, 8/2001, pp. 957-966.	
-	43.	Carothers, K., A Method of Measuring Nets Routability for MCM's General Area Routing Problems, 1999, pp. 186-192.	
	44.	Chen, H. et al., Physical Planning of On-Chip Interconnect Architectures, 2002, IEEE, International Conference, pp. 30-35.	
	45.	Cheng, K., Steiner Problem in Octilinear Routing Model, a Thesis Submitted for the Degree of Master of Science, National University Singapore, 1995, pp. 1-122.	
	46.	Cheng, K. et al., Manhattan or Non Manhattan? A Study of Alternative VLSI Routing Architectures, pp 47-52, 2000.	
	47.	Chip Model with Wiring Cost Map, August 1983, IBM Technical Disclosure Bulletin, vol. 26, iss. 3A, pp. 929-933.	
	48.	Cong, J. et al., Efficient Heuristics for the Minimum Shortest Path Steiner Arborescence Problem with Applications to VLSI Physical Design, Cadence Design Systems and UCLA Computer Science Department, pp.88-95.	
	49.	Cong, J. et al., Performance-Driven Multi-Layer General Routing for PCB/MCM Designs, UCLA Computer Science Department, 1998, pp. 356-361.	
	50.	Enbody, R. et al., Near-Optimal <i>n</i> -Layer Channel Routing, 23 <sup>rd</sup> Design Automation Conference, 1986, pp. 708-714.	
	51.	Fang, S. et al., Constrained Via Minimization with Practical Considerations for Multi-Layer VLSI/PCB Routing Problems, 28 <sup>th</sup> ACM/IEEE Design Automation Conference, 1991, pp. 60-65.	
	52.	Hom, I. et al., Estimation of the Number of Routing Layers and Total Wirelength in a PCB Through Wiring Distribution Analysis, 1996, pp. 1-6.	
	53.	Hong, X. et al., Performance-Driven Steiner Tree Algorithms for Global Routing, 30 <sup>th</sup> ACW/IEEE Design Automation Conference, 1993, pp. 177-181.	

Examiner	Date	
Signature	Considered	

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Stacy A. Whitemore

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	NON PATENT LITERATURE DOCUMENTS
54	Khoo, K. et al., An Efficient Multilayer MCM Router Based on Four-Via Routing, 30 <sup>th</sup> ACM/IEEE Design Automation Conference, 1993, pp. 590-595.
55	Lillis, J. et al., Table-Lookup Methods for Improved Performance-Driven Routing, 1998, pp. 368-373.
56	Lipski, W. et al., A Unified Approach to Layout Wirability, Mathimatical Systems Theory, 1987, pp. 189- 203.
57	Lodi, E. et al., A Preliminary Study of a Diagonal Channel-Routing Model, Algorithmica, 1989, pp.585-597.
58	Model, pp. 464-476, July 1988.
59	Naclerio, N. et al., Via Minimization for Gridless Layouts, 24 <sup>th</sup> ACM/IEEE Design Automation Conference, 1987, pp. 159-165.
60	Nam, G. et al, Satisfiability-Based Layout Revisited: Detailed Routing of Complex FPGAs Via Search- Based Boolean SAT, 1999, pp. 167-175.
61	Oh, J. et al., Constructing Lower and Upper Bounded Delay Routing Trees Using Linear Programming, 33 <sup>rd</sup> Design Automation Conference, 1996.
62	Partitioning Logic on to Graph Structure, IBM Technical Disclosure Bulletin, February 1990, vol. 32, iss. 9A, pp. 469-475.
63	Phillips, N., Channel Routing by Constraint Logic, Department of Computer Science Southern Illinois University, ACM, 1992.
64	Takashima, Y. et al, Routability of FPGAs with Extremal Switch-Block Structures, IEICE Trans. Fundamentals, vol. E81-A, No. 5, May 1998, pp. 850-856.
65	Thakur, S. et al., Algorithms for a Switch Module Routing Problem, 1994, pp. 265-270.
66	Theune, D. et al., HERO: Hierarchical EMC-constrained routing, 11/1992, IEEE pp 468-472.
67	Tseng, H., Timing and Crosstalk Driven Area Routing, pp. 378-381.

Examiner Name

Attorney Docket Number

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Signature	Considered	

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NON PATENT LITERATURE DOCUMENTS					
	68.	Wang, D., Novel Routing Schemes for IC Layout, Part I: Two-Layer Channel Routing, 28 <sup>th</sup> ACM/IEEE Automation Conference, 1991, pp. 49-53.			
	69. ·	Wang, M. et al., Modeling and Minimization of Routing Congestion, Jan. 2000, IEEE proceedings of ASP-DAC, Asia and South Pacific, pp. 185-190.			
	70.	Wood, G. et al., FPGA Routing and Routability Estimation Via Boolean Satisfiability, Department of Electrical and Computer Engineering Carnegie Mellon University, Pittsburgh, PA, pp. 119-125.			
	71.	Zhang, C.X. et al., Floorplan Design Using a Hierarchical Neutral Learning Algorithm, IEEE, 6/1991. pp. 2060-2063.			
	72.	Zhou, H. et al., An Optimal Algorithm for River Routing with Crosstalk Constraints, 1996.			
	73.	Zhou, H. et al., Global Routing with Crosstalk Constraints, Department of Computer Sciences, University of Texas, 1998, pp. 374-377.			
	74.	Zhou, H. et al., Optimal River Routing with Crosstalk Constraints, ACM Transactions on Design Automation of Electronic Systems, vol. 3, No. 3, July 1998, pp. 496-514.			

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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Application Number 10/047,978

Filing Date 1/13/02

First Named Inventor Steven Teig

Group Art Unit 2812

Examiner Name Stacy A. Whitemore

Attorney Docket Number

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U.S. PATENT DOCUMENTS						
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	1.	2001/0009 031	A1	07-19-2001	Nitta et al.	
	2.	4,593,363		06-03-1986	Burstein et al.	
	3.	5,267,176		11-30-1993	Antreich et al.	
	4.	5,566,078		10-15-1996	Ding et al.	
	5.	5,618,744		04-08-1997	Suzuki et al.	
	6.	5,635,736		06-03-1997	Funaki et al.	
	7.	5,637,920		06-10-1997	Loo	
	8.	5,640,327		06-17-1997	Ting	
	9.	5,798,936		08-25-1998	Cheng	150
	10.	5,838,583		11-1998	Varadarajan et al.	HECE NOV 1
	11.	5,980,093		11-09-1999	Jones et al.	D NO ILL
	12.	6,070,108		05-30-2000	Andreev et al.	DOY OF
	13.	6,150,193		11-21-2000	Glenn	1 + 2003 1 + 2003
	14.	6,209,123	B1	03-27-2001	Maziasz et al.	
	15.	6,219,832	B1	04-17-2001	Buzbee	R 28
	16.	6,249,902	B1	06-19-2001	Igusa et al.	800
	17.	6,253,363	B1	06-26-2001	Gasanov et al.	
	18.	6,295,634	B1	09-25-2001	Matsumoto	
	19.	6,307,256		10-23-2001	Chiang et al.	
	20.	6,316,838	B1	11-13-2001	Ozawa et al.	
	21.	6,324,675	B1	11-27-2001	Dutta et al.	

ſ	Examiner	Date	
1	Signature	Considered	

<sup>\*</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \*Applicant's unique citation designation number(optional). \*See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. \*Senter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \*For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. \*Applicant is to place a check mark here if English language Translation is attached.

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